

Figure B1. NEFSC statistical areas included in the Georges Bank Winter flounder stock assessment.

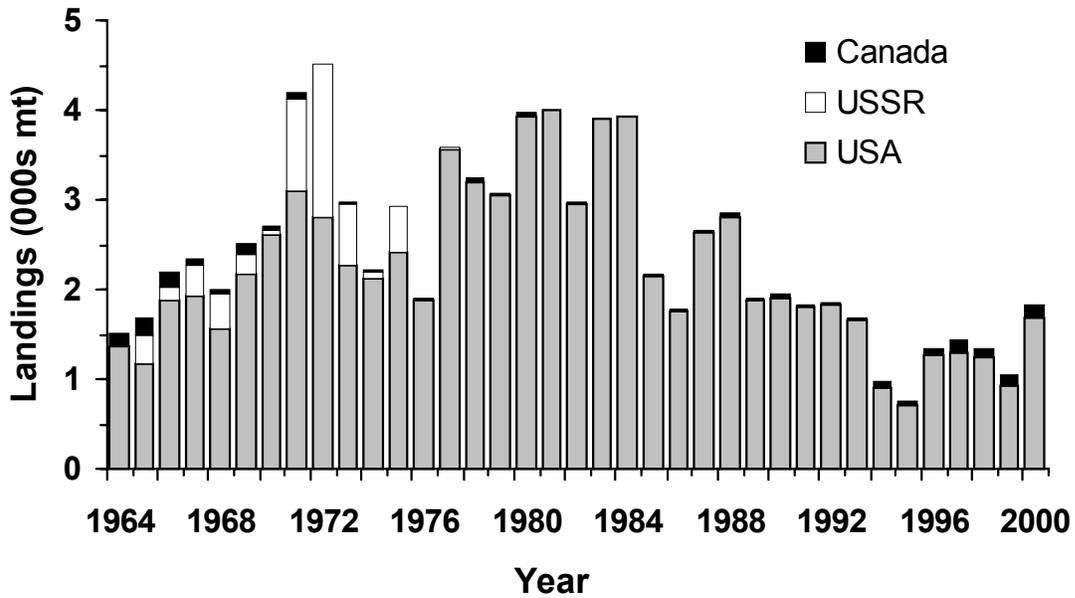


Figure B2. Commercial landings of winter flounder from the Georges Bank stock (U. S. statistical areas 522, 525, 551-562) during 1964-2000.

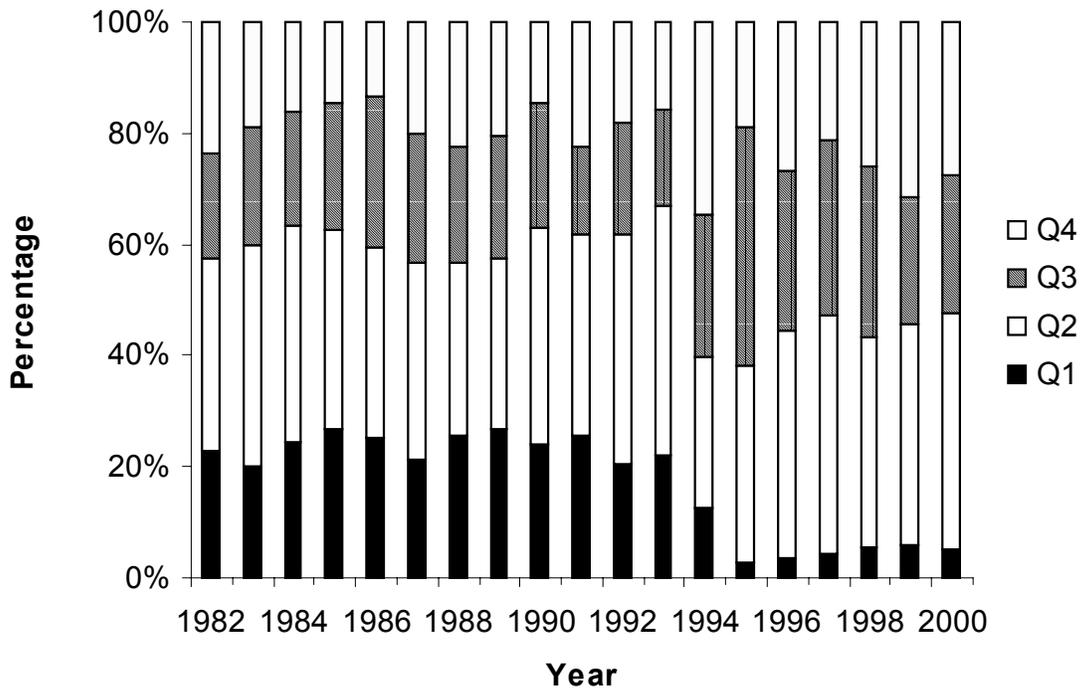


Figure B3. Percentage of USA landings (mt) of Georges Bank winter flounder, by quarter, during 1982-2000.

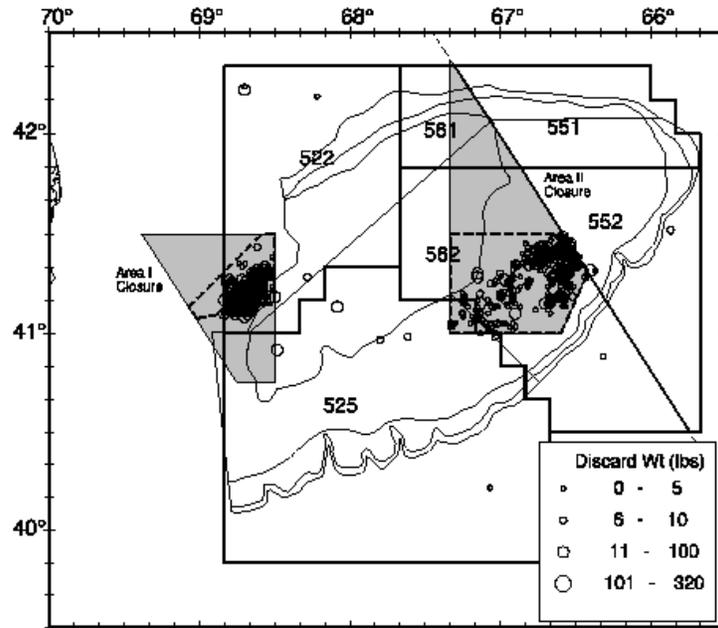


Figure B4. Discard weight for Scallop dredge observed tows in closed areas during 2000.

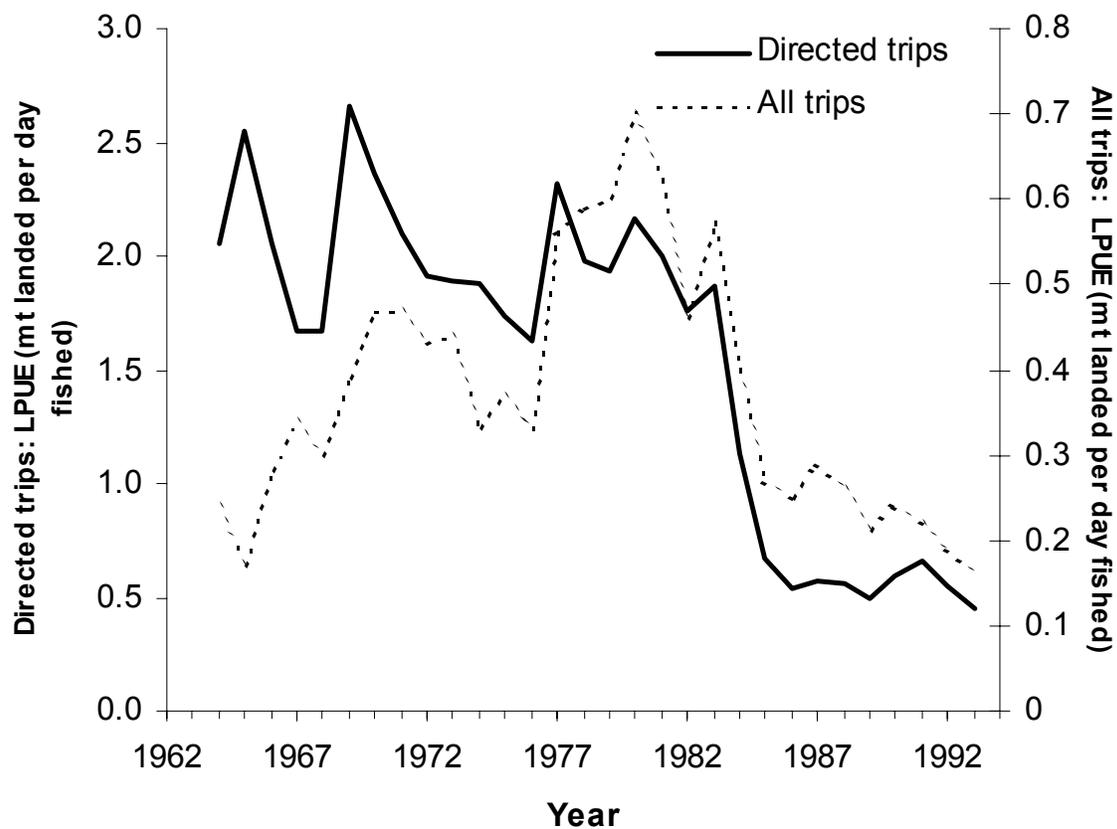


Figure B5. Trends in nominal LPUE (mt landed per day fished) for all otter trawl trips that landed winter flounder and for directed trips (landings of winter flounder greater than or equal to 50% by weight) during 1964-1993.

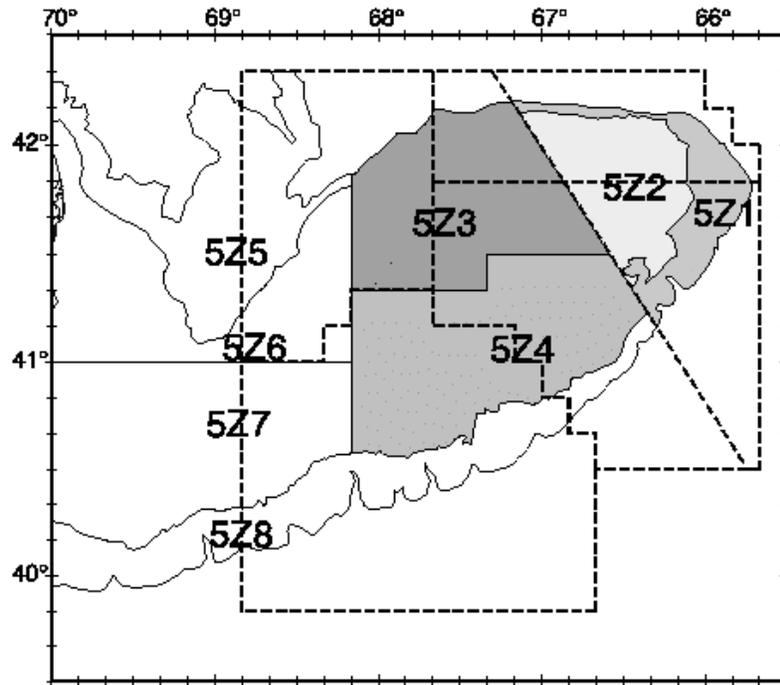


Figure B6. NEFSC offshore survey strata (13-22) located within the Georges Bank Winter flounder stock boundary (dashed line).

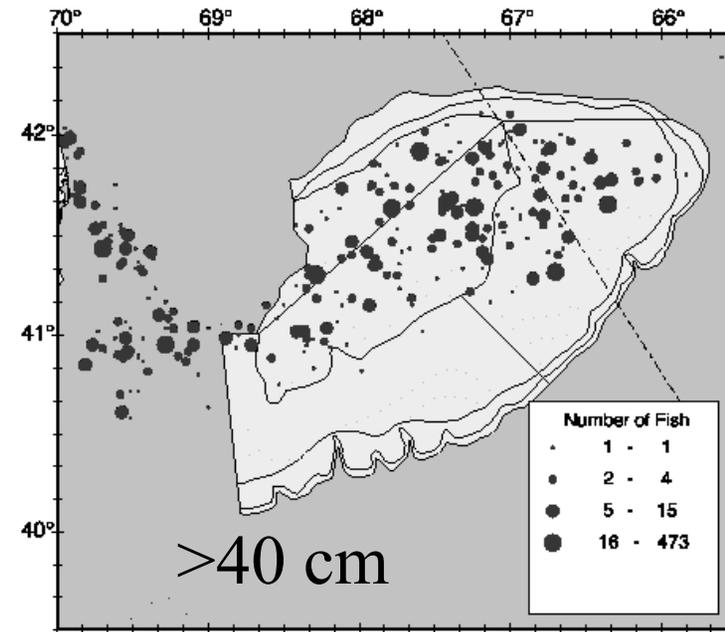
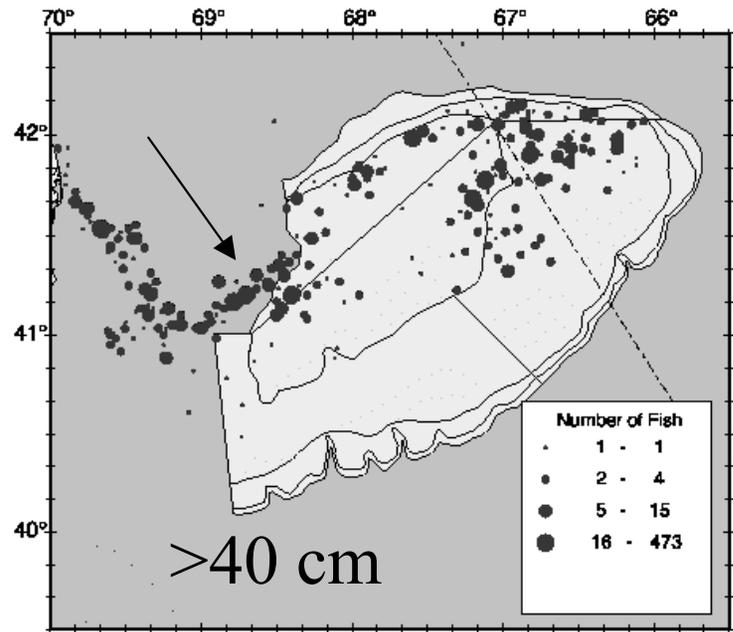
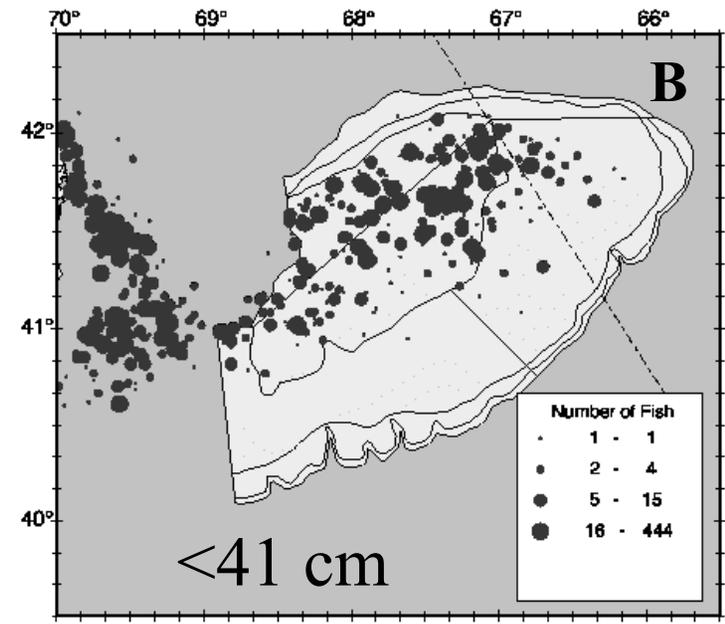
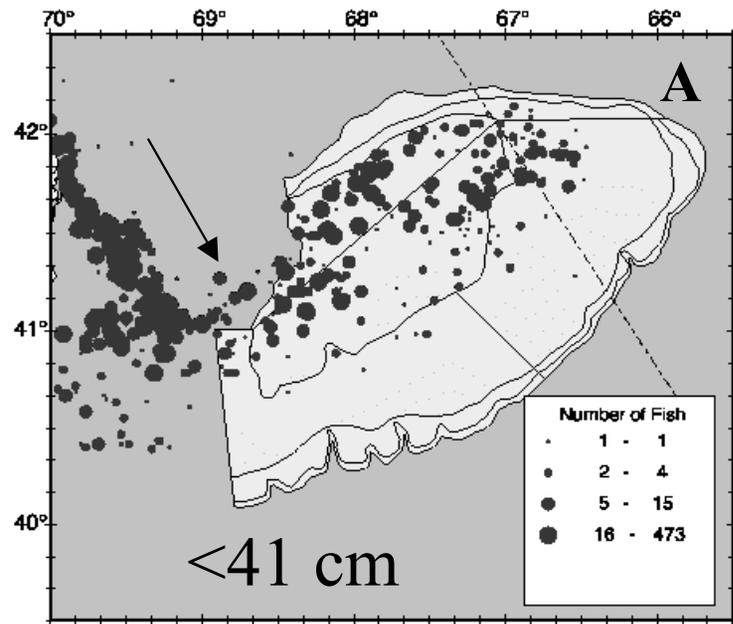


Figure B7. Distribution of Georges Bank winter flounder during the (A) autumn and (B) spring NEFSC research surveys, 1982-2000.

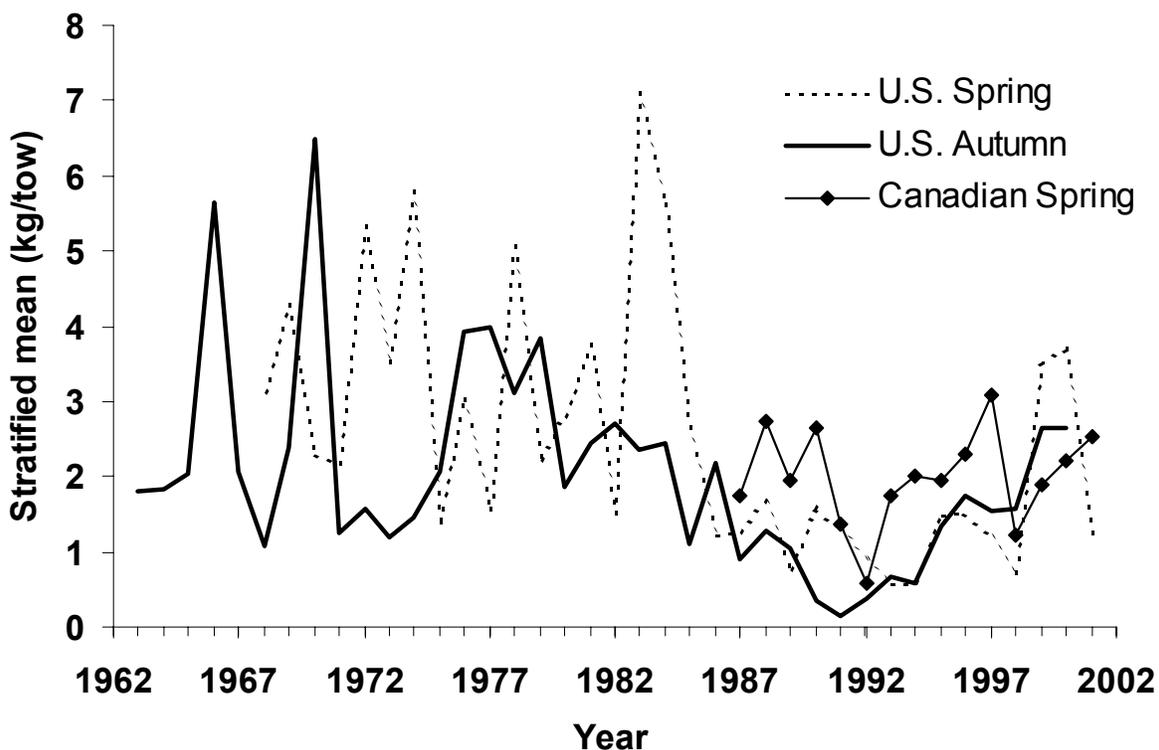


Figure B8. Relative abundance (number/tow) (A) and biomass (kg/tow) (B) indices from the NEFSC spring (1968-2001) and autumn (1963-2000) research vessel bottom trawl surveys and the Canadian spring surveys (1987-2001). U.S. indices include offshore strata 13-22 and Canadian indices include strata 5Z1-Z4.

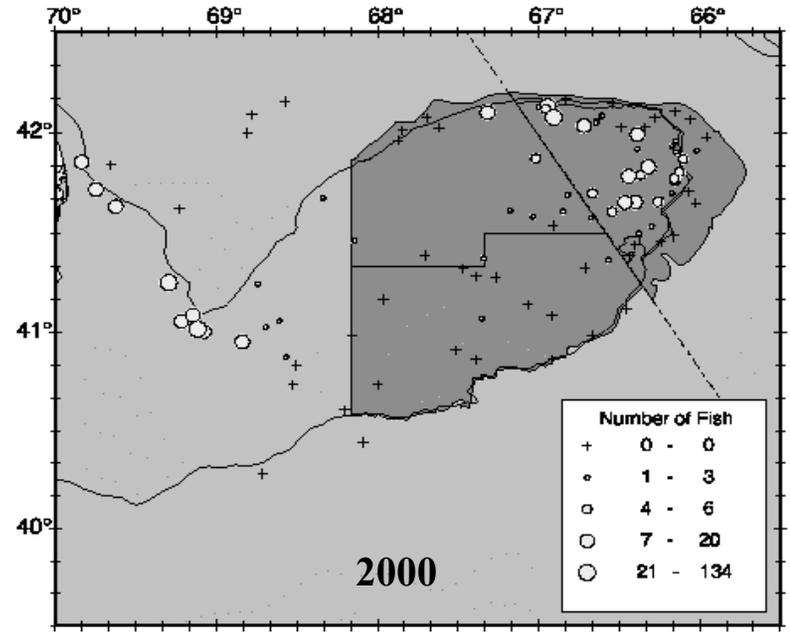
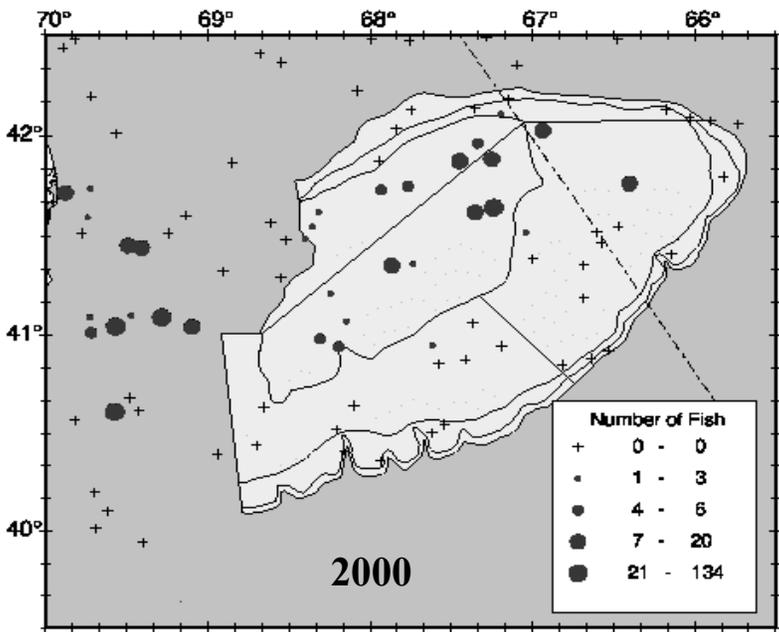
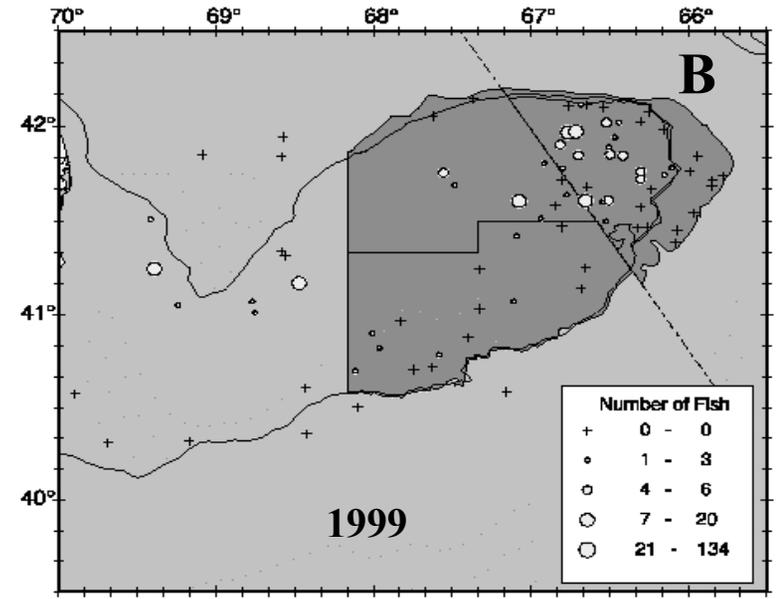
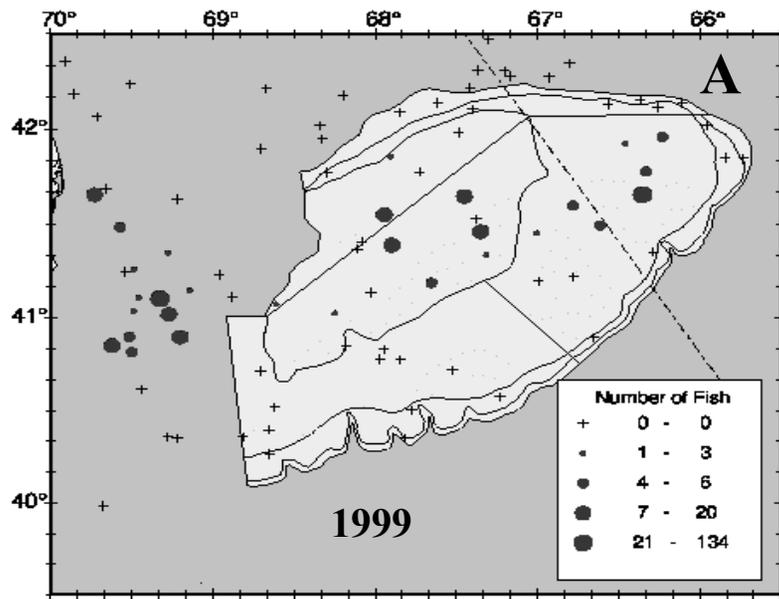


Figure B9. Distribution of Georges Bank winter flounder caught in the (A) NEFSC and B) Canadian spring bottom trawl surveys during 1999 and 2000.

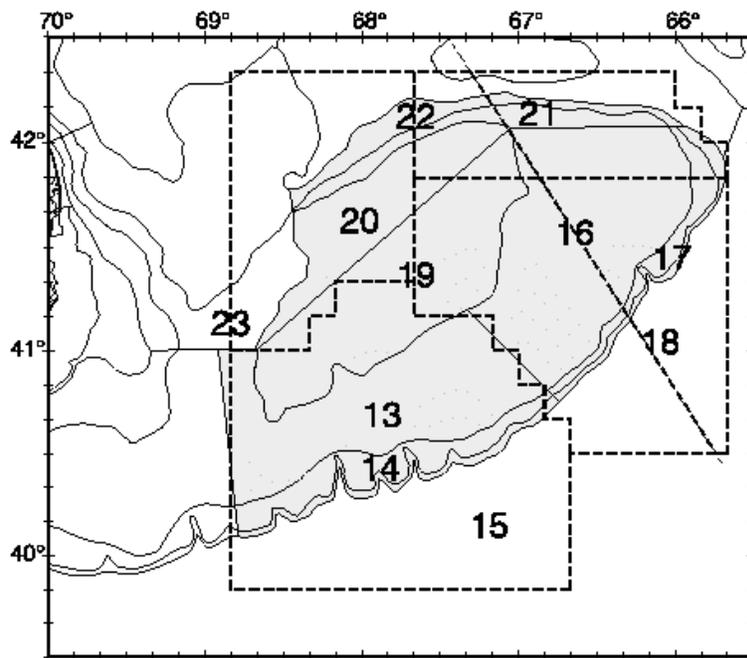


Figure B10. Canadian spring survey strata (5Z 1-4) located entirely within the Georges Bank winter flounder stock boundary (dashed line).

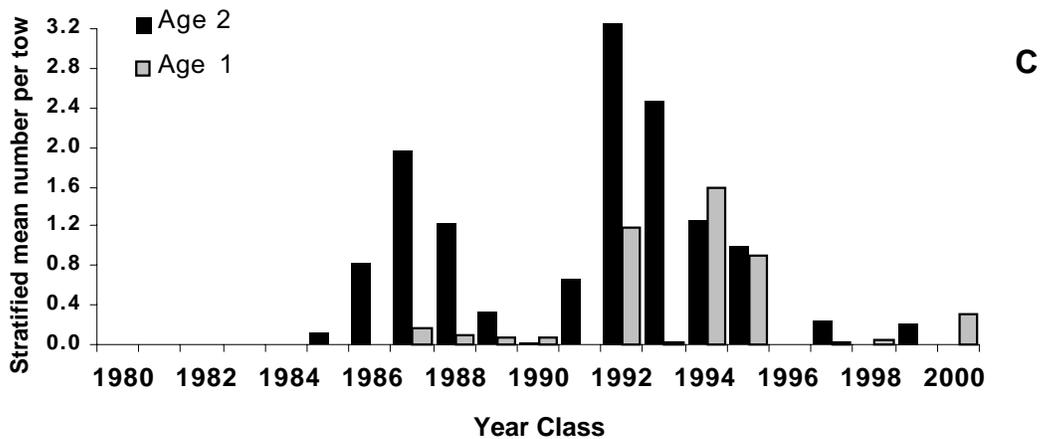
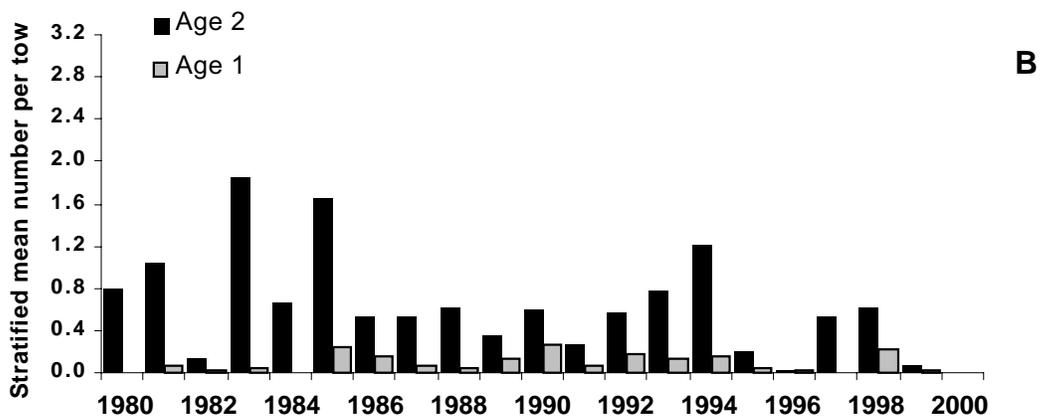
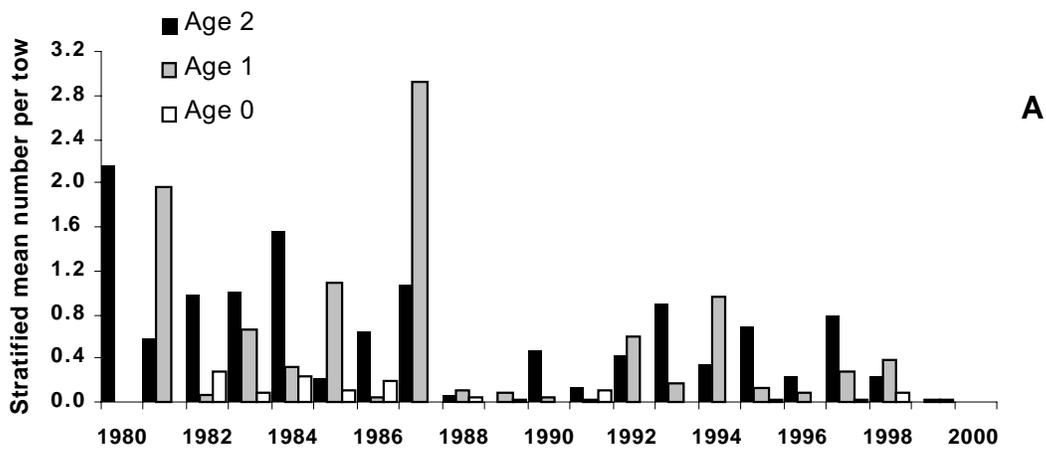


Figure B11. Recruitment in the NEFSC (A) autumn and (B) spring bottom trawl surveys (offshore strata 13-22, 1980-2000) and the (C) Canadian spring bottom trawl surveys (strata 5Z1-4, 1985-2000).

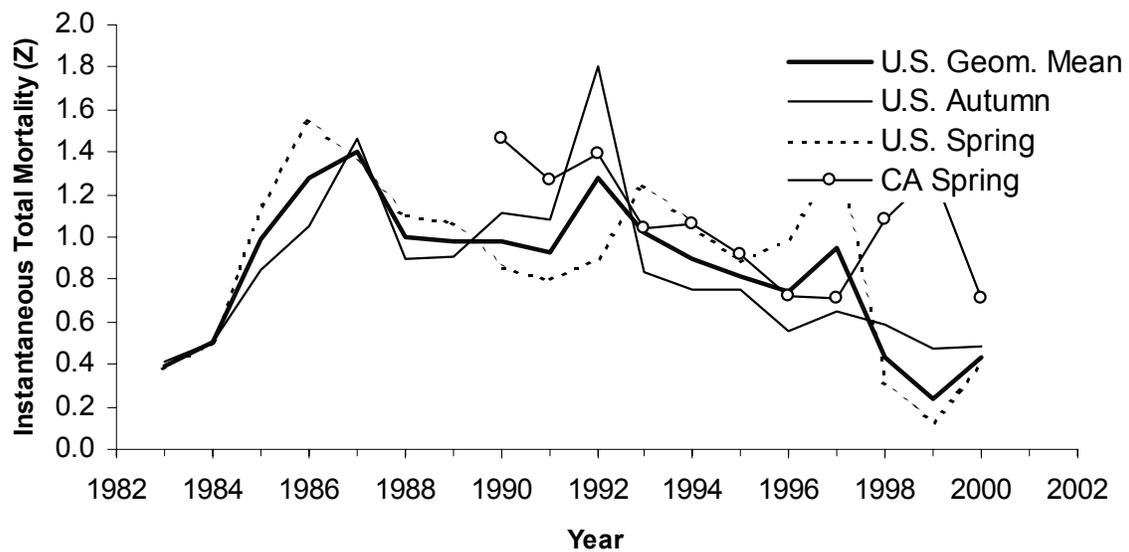


Figure B12. Trends in three-year moving averages of instantaneous total mortality (Z) of Georges Bank winter flounder derived from U.S. autumn and spring (1980-2000) and Canadian Spring (1987-2000) research vessel bottom trawl surveys during 1980-2000.

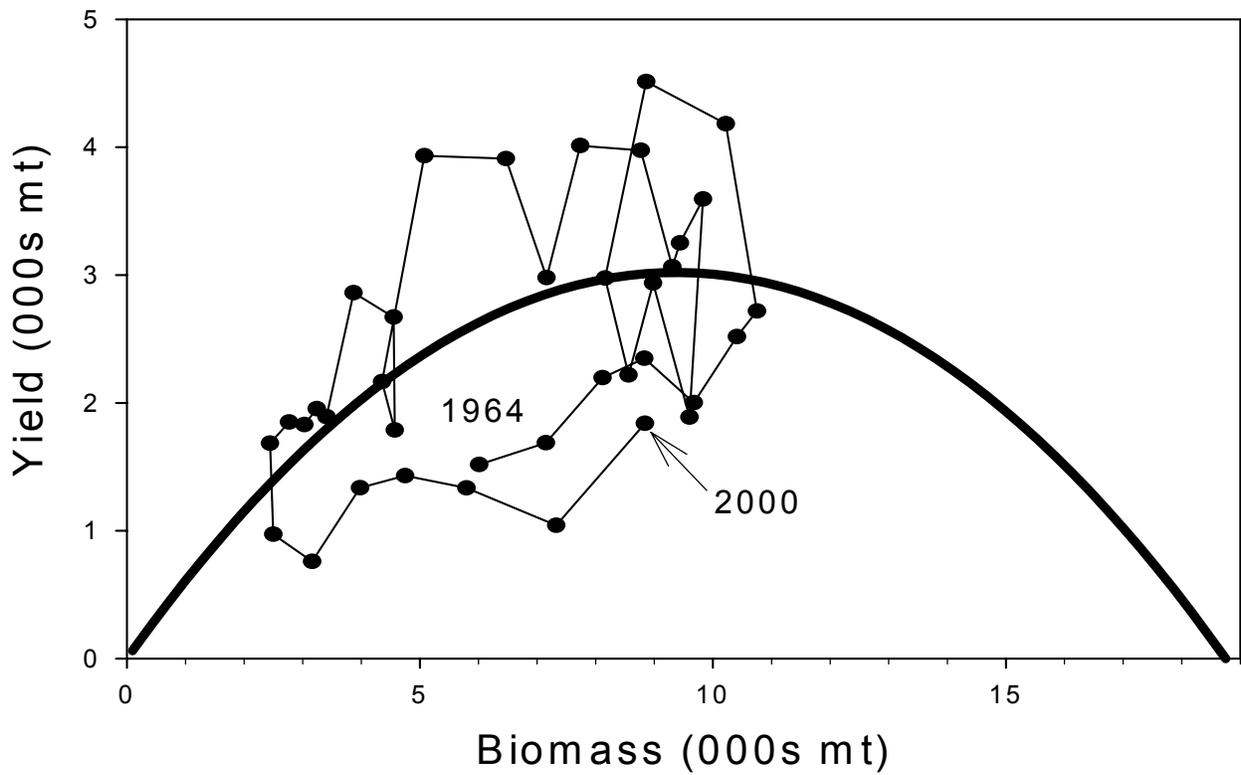


Figure B13. Time trajectory of yield from the Georges Bank winter flounder stock relative to the surplus production curve estimated from an ASPIC surplus production model.

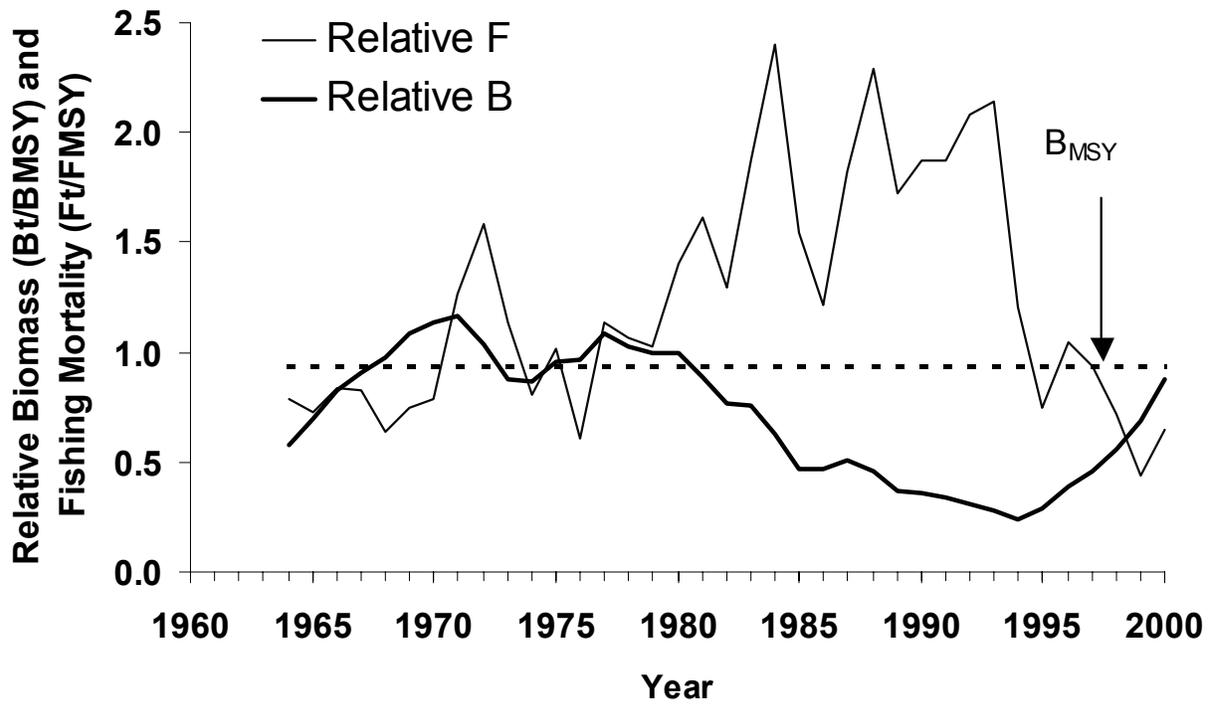


Figure B14. Trends in relative biomass (B_t/B_{MSY}) and relative fishing mortality rates (F_t/F_{MSY}) estimated from an ASPIC surplus production model, for Georges Bank winter flounder, during 1964-2000.

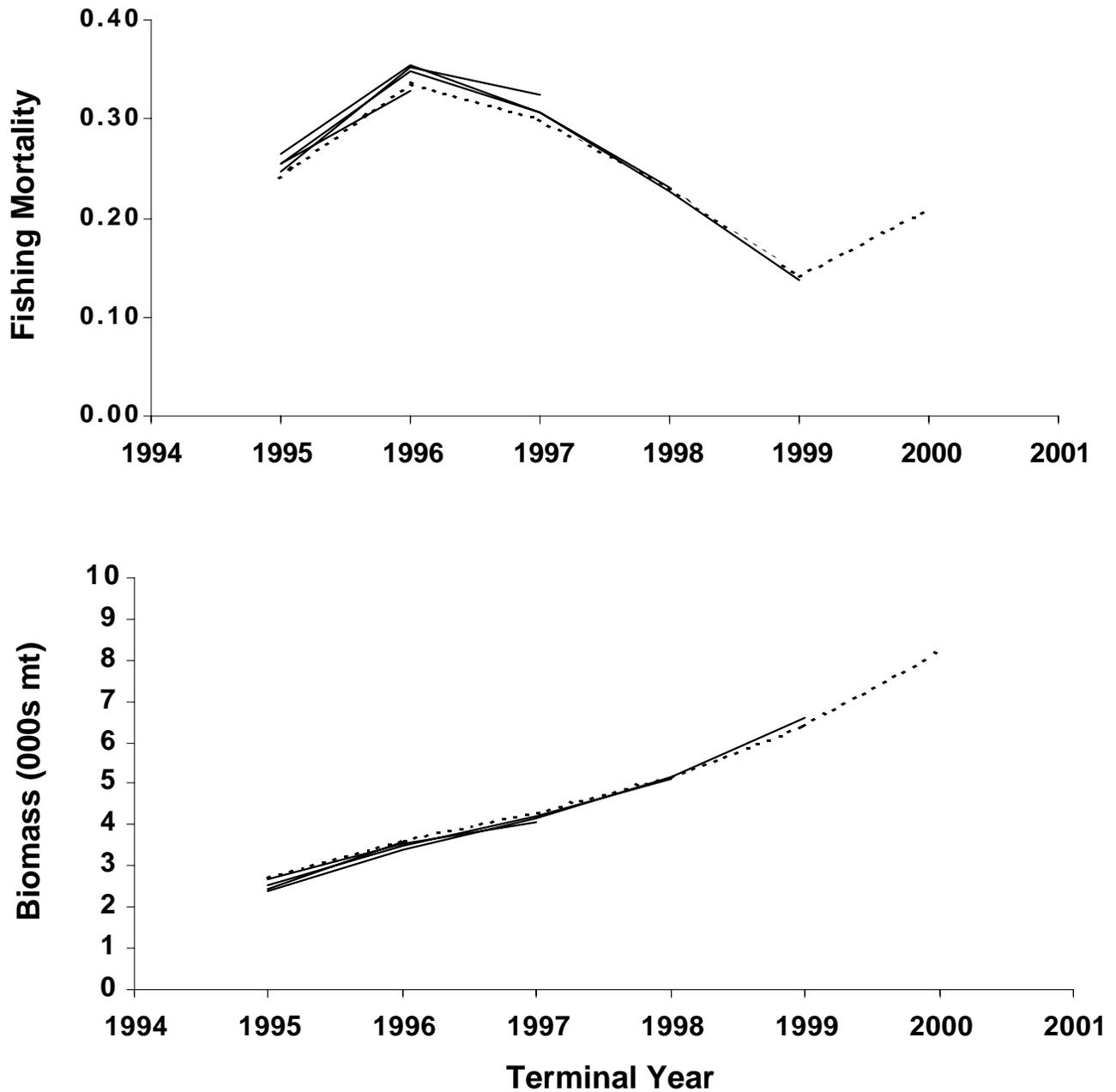


Figure B15. Retrospective patterns in (A) average fishing mortality and (B) stock biomass, during terminal years 1995-2000, from an ASPIC surplus production model (Run 3) for Georges Bank winter flounder.

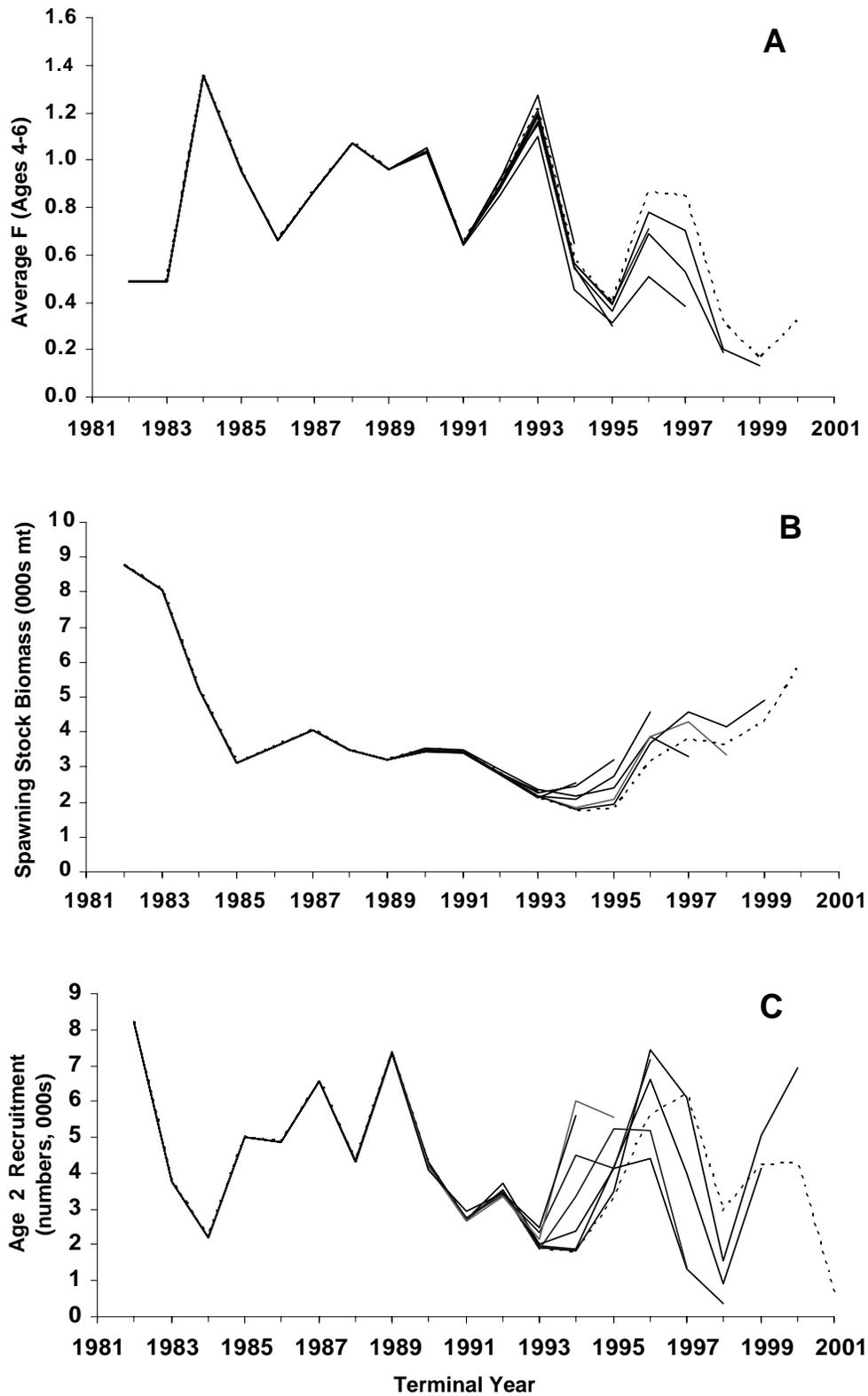


Figure B16. Retrospective patterns in (A) average fishing mortality rates, (B) spawning stock biomass and (C) age 2 recruitment from Run 2 of a Virtual Population Analysis of Georges Bank winter flounder for terminal years 1982-2000.

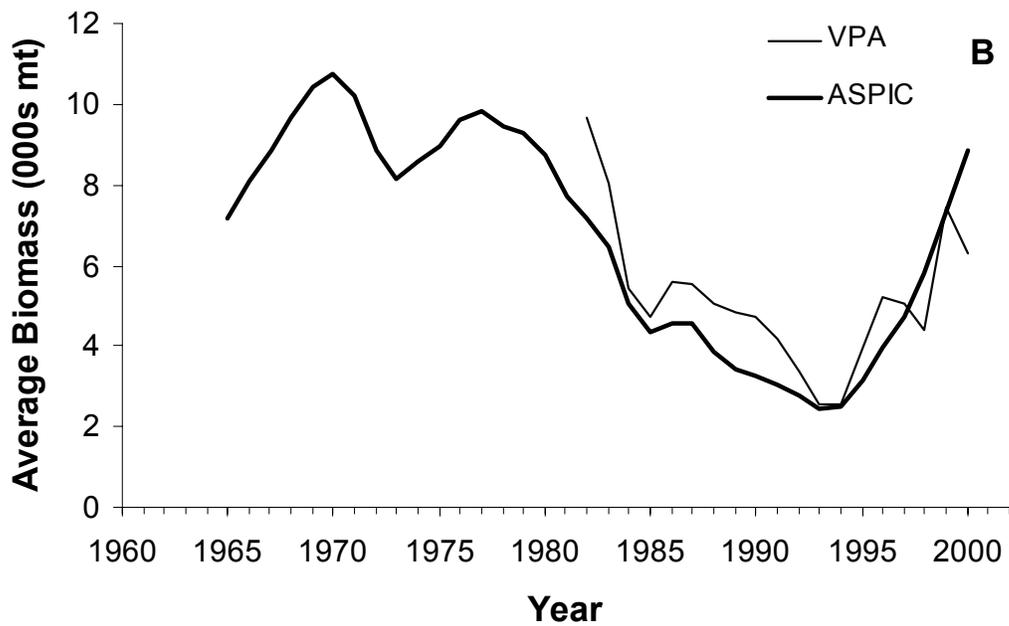
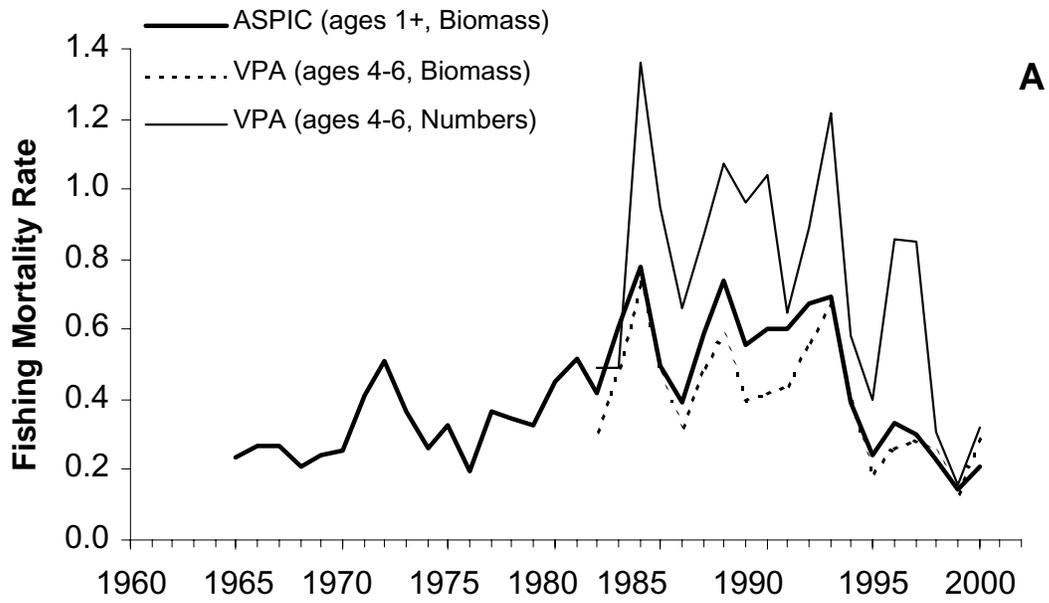


Figure B17. Trends in (A) fishing mortality rates and (B) biomass from an ASPIC surplus production model (1964-2000) and a VPA model (1982-2001). Biomass estimates from both models are for ages 1+.

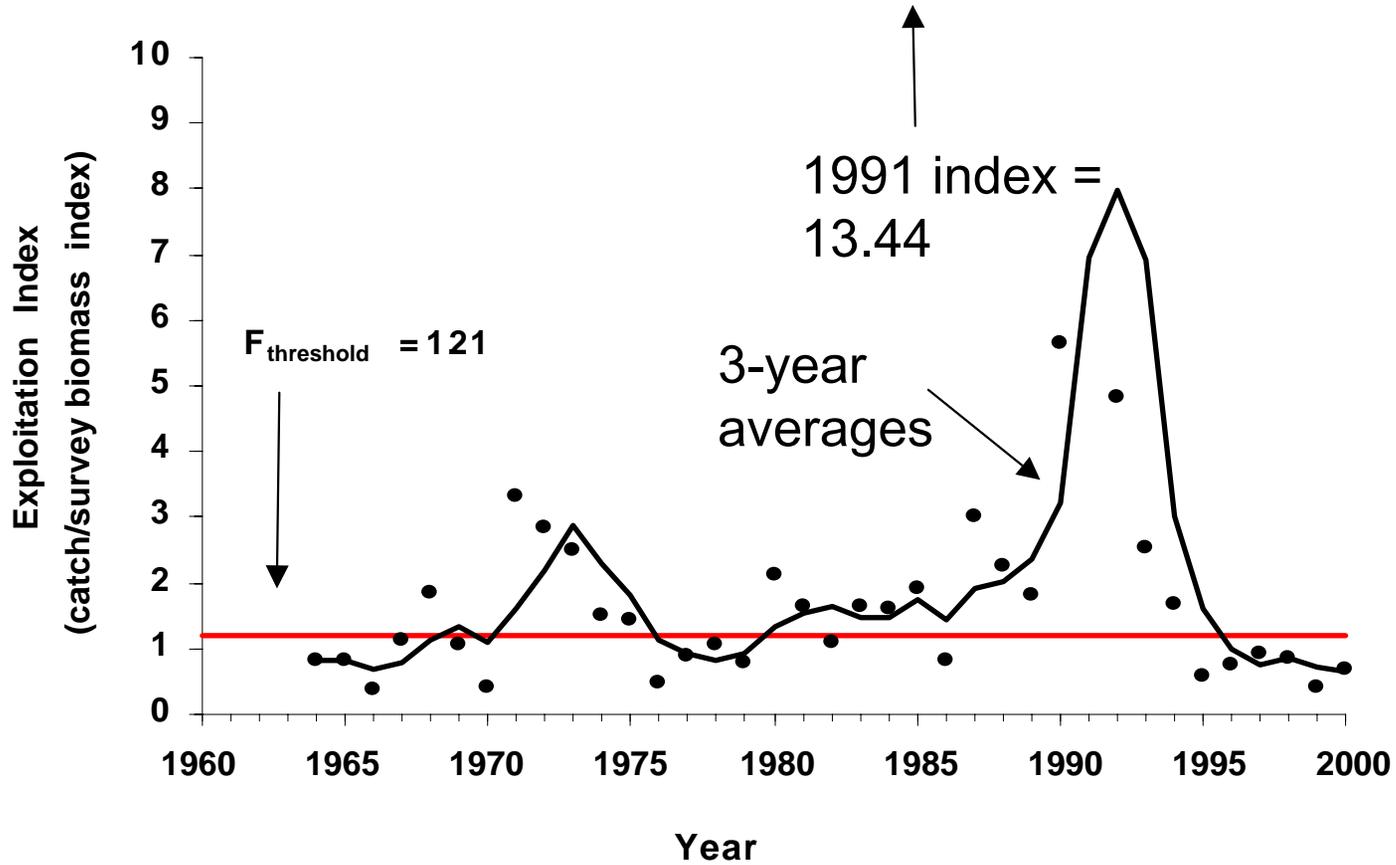


Figure B18. Trends in annual and 3-year average relative exploitation indices (catch/autumn survey biomass index) of Georges Bank winter flounder during 1964-2000.

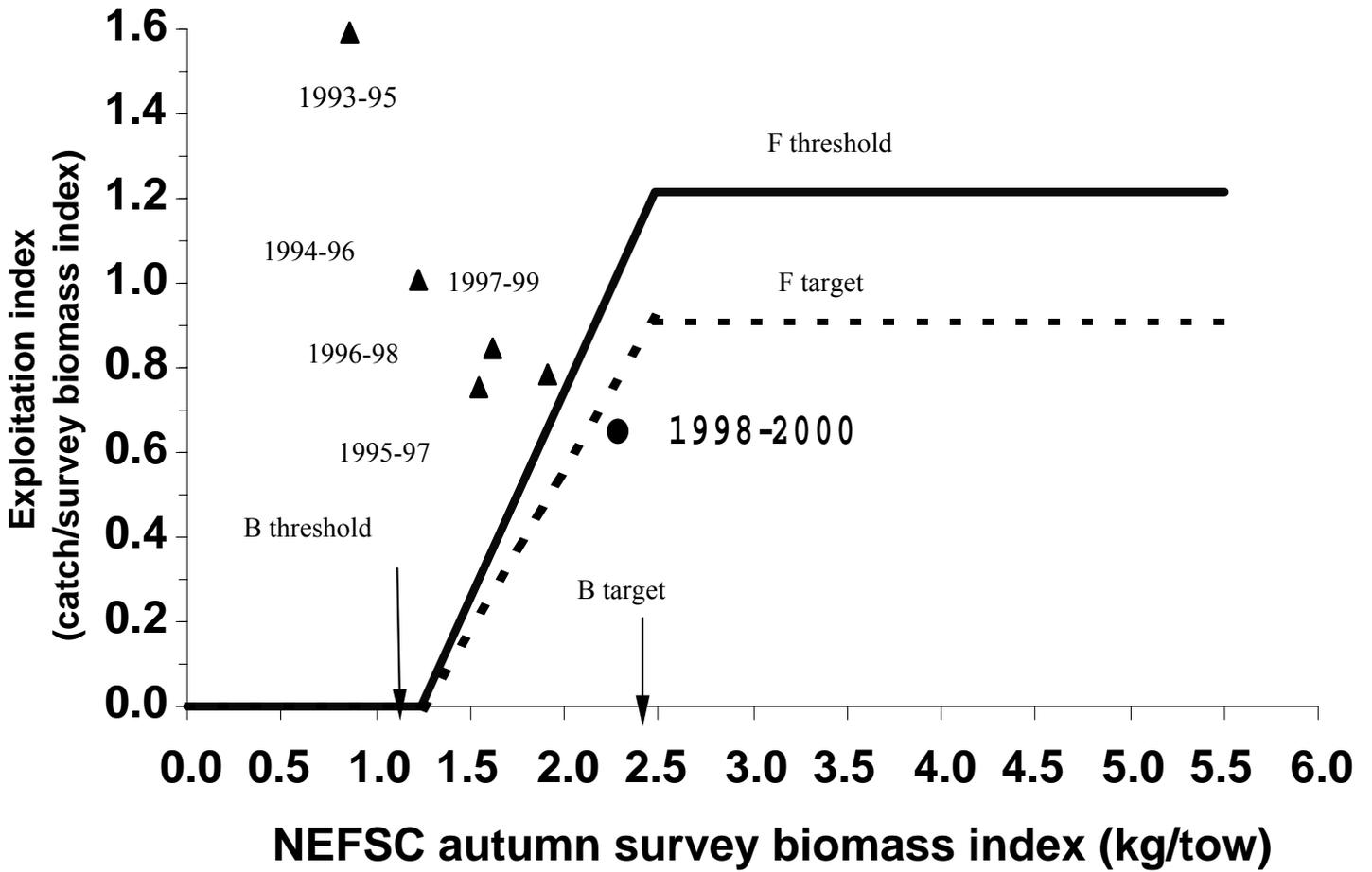


Figure B19. Revised overfishing control rule and three-year average exploitation and survey biomass indices.

